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DEPARTMENT FOR T/MARC HUMPHREY

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TAGS: [ENRG](#) [TRGY](#) [BEXP](#) [BTIO](#) [EPET](#) [PGOV](#) [LO](#)

SUBJECT: CIVIL NUCLEAR ENERGY SECTOR OVERVIEW

REFTEL: A) SECSTATE 127423

B) BRATISLAVA 582

**11.** (U) Responses to reftel questions follow.

Overview of Civil Nuclear Power Program

**12.** (U) Slovakia currently has five 440 megawatt (MW) nuclear reactors in operation. One of them will be shut down in December 2008. Two 440 MW reactors are currently under construction with plans for one, and possibly two, new projects.

**13.** (U) The state-owned company JAVYS a.s. owns two reactors at Nuclear Power Plant V1 Jaslovske Bohunice located in western Slovakia, near the town of Trnava. Both reactors are of the Russian VVER 440 design, type V230, and each one has an installed capacity of 440 MW. The GoS agreed to close these two Soviet-era nuclear reactors during EU accession negotiations. The first reactor was shut down in December 2006, and JAVYS a.s. is currently working on its decommissioning. The second reactor is still in operation but is scheduled to be shut down by the end of 2008.

**14.** (U) After the second reactor is closed, total installed production capacity countrywide will drop from 8,157 MW to 7,277 MW.

At the same time, the demand for electricity in Slovakia is projected to increase over the next 10-15 years. The GoS considers it a strategic priority not to rely on imported electricity; as a result, it plans to expand production with both thermal and nuclear plants.

**15.** (U) Slovenske Elektrarne a.s. owns two additional nuclear reactors at the Nuclear Power Plant V2 Jaslovske Bohunice. Slovenske Elektrarne a.s. is managed by the Italian energy firm ENEL (49 percent shareholder) with the Slovak government as majority shareholder. Electricity is generated by two 440 MW reactors of the same VVER 440 design, type V213. Both V2 reactors will be closed in 2025 or 2026.

**16.** (U) The next four nuclear reactors, also owned and operated by Slovenske Elektrarne a.s., are located at Mochovce in southern Slovakia, between the towns of Nitra and Levice. All four of these reactors use pressurized water and are of the same WER 440 design, type V213, with an installed capacity 440 MW for each reactor. The Mochovce facility is divided into two plants - EMO 1 and EMO 2. The first reactor at EMO 1 has been in operation since 1998, and the second reactor has been supplying electricity since late 1999. Both reactors are scheduled to be shut down in 2045. EMO2 is currently under construction. The third reactor should be completed by 2012 and the fourth reactor is expected to be completed by 2013.

**17.** (U) Slovakia plans to build a fifth reactor unit in Jaslovske Bohunice and possibly an additional new reactor in Kecerovce in eastern Slovakia. Plans for Bohunice 5 (V3) were announced in April 2008 and call for 1000-1600 MW capacity. The manufacturing base in Slovakia is not involved in nuclear-related products or services so the majority of components or contracting services for new plants would need to be imported. The Economy Ministry has stated that Slovakia would benefit from the participation of a foreign strategic investor in the construction of the new nuclear unit and recently

selected the Czech energy group CEZ as its strategic partner. CEZ is to become a 49-percent managing shareholder in a 100-percent special purpose vehicle (SPV) that is to be established by the GoS. The Ministry has not yet specified the type or capacity of the reactor for Jaslovske Bohunice. The final decision on these issues is scheduled to be made by October 2010. The GoS and CEZ are expected to seek financing from a variety of sources. The GoS has not specified what incentives will be available for this project, but it has a number of established subsidy programs for new investment, including direct subsidies, employment subsidies, education credits, income tax relief, and land grants. Direct financing participation and/or guarantees from the GoS are possible.

¶18. (U) The GoS plans to create a new facility to be used as a final storage disposal site for used nuclear fuel and other nuclear waste.

The total planned investment is \$4.73 billion. The government is considering five potential locations for this facility. All costs for the building of the storage facility, the decommissioning of reactors, and storage of used fuel from reactors will be paid by the National Nuclear Fund.

¶19. (U) Slovakia has the workforce necessary to run the five nuclear power plants currently operating. The expansion of civil nuclear power will not require a significant foreign workforce. However, we are unaware of the demographic distribution of the current workforce; pending retirements may affect its size over the long term. Officials in the regulatory authority have raised the declining graduation rate of young nuclear engineers as a concern for the future of the industry. Programs are in place for the training of domestic personnel.

¶10. (SBU) The Nuclear Regulatory Authority of the Slovak Republic (UJDSR) is an independent regulatory body responsible for licensing, safety, waste management, radiation protection and security. UJDSR

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has 81 full time employees with plans to expand to 89 employees.  
COMMENT: Recently, the GOS has undertaken efforts to constrain the ability of energy suppliers to raise prices and allegedly has attempted to pressure regulatory bodies to act in line with GOS preferences in violation of EU requirements (reftel b), including by firing "uncooperative" leadership. Given the strategic and economic importance of the nuclear sector in Slovakia, this emerging pattern could presage similar pressures on the UJDSR. END COMMENT.

¶11. (U) UJDSR has the following enforcement powers:

- Issues decisions based on the Atomic Act and Building Code.
- Evaluates documentation submitted by supervised institutions.
- Evaluates events at nuclear facilities, nuclear safety, and reviews decisions resulting from the Atomic Act.
- Executes state supervision, inspection activities, and administration of sanctions in case of violations.
- Coordinates emergency preparedness of the Slovak Republic for a radiation event.
- Publicizes information on nuclear safety issues.
- Manages the state record system for nuclear materials.
- Fulfills the role of lead agency in implementing relevant EU commitments and international treaties and agreements.
- Drafts and comments on legislation.

¶12. (U) Nuclear liability is governed by the Vienna Convention (No. 70/1996), signed by Slovakia in January 1995, and the Nuclear Law (No. 541/2004). The minimum level of liability coverage required for operators is EURO 75 million for nuclear power units for production of electricity and EURO 50 million for other nuclear equipment and transportation of nuclear fuel.

#### Opportunities for U.S. Industry

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¶13. (U) We anticipate tenders for two new plants in Jaslovske Bohunice; specifications and method of tender are expected to be determined in late 2010. The GoS recently selected a strategic partner (CEZ) to structure and set specifications for the new build at Jaslovske Bohunice. As a minority shareholder in a stand-alone corporation, the partner will have management responsibilities for both the build and the operation of the new plant. The method and technical specifications for choosing technology providers has not been determined. Whether these will be open tender has also not been determined. The final decision on these issues should be made in October 2010.

**¶14.** (U) U.S. companies are potential suppliers of feasibility studies or other consulting services, plant construction management, reactor sales, fuel cycle service provision, waste management, and logistics for planned nuclear reactors. Potential U.S. suppliers include American Brazing Co., Babcock & Wilcox Company, Basler Electric Co., Bechtel Nuclear Power, Brooks, GE Energy, Henry Pratt Co., Hudson Energy, Megawatt Machine Services, Nace International, Parker Hannifin Corporation, Washington Group International, Westinghouse, and others.

**¶15.** (U) The primary companies involved in Slovakia's civil nuclear sector follow.

Current electricity utilities and plant operators:

--Slovenske elektrarne a.s. (SE a.s.)  
--Jadrova a vyradovacia spoločnosť (JAVYS)

Major domestic construction or consulting firms:

--JAVYS  
--Vyzkumny ustav jadrovej energetiky (VUJE)

Other institutions:

--Nuclear Power Research Institute  
--Office of Standards, Metrology and Testing  
--Electrotechnical Research and Design Institute  
--Union for the Co-ordination of Transmission of Electricity  
--Slovak Nuclear Regulatory Authority  
--National Nuclear Fund

Foreign Competitors

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**¶16.** (U) Slovakia signed MOUs with France and Russia on nuclear energy cooperation in 2008. Anticipated foreign technology vendors and fuel cycle service providers follow.

--German firms RWE, E.ON and EnBW  
--French companies Electricite de France (EdF) and Electrabel (a member of the GdF Suez concern)  
--Italian company Enel  
--Swedish company Vattenfall  
--Spanish company Iberdrola  
--Czech energy group CEZ  
--Finish firm Fortum Ovi

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**¶17.** (SBU) Slovakia's dependence on Russian gas and oil may steer business toward Russian nuclear suppliers in hopes of influencing gas and oil price agreements. Existing business ties with German, Italian, and French energy companies may advantage suppliers from those countries. On the other hand, the current government has had rocky relationships with its foreign partners, in privatized energy companies. Historically close cooperation between the Slovak and Czech nuclear sectors appears to have influenced the selection of CEZ as the strategic partner for the new build in Jaslovske Bohunice.

**¶18.** (SBU) Nonetheless, there should be opportunities for U.S. firms, offering more technologically advanced and safer technologies than some foreign competitors, to participate in Slovakia's efforts to expand its nuclear capacity. Embassy Bratislava will monitor and report on the evolving business environment, to include transparency in government contracting and award of EU funds, as well as on developments in the nuclear energy sector.

OBSITNIK